## **WHAT IS CLAIMED IS:**

- 1. A method of preconditioning an anion exchange resin, comprising: providing an anion exchange resin bed and passing carbon dioxide gas through the resin bed.
- 2. The method of Claim 1, wherein the anion exchange resin is a DOW® 550 anion exchange resin.
- 3. The method of Claim 1, further comprising prior to passing said carbon dioxide gas through said anionic exchange resin, purifying the carbon dioxide gas.
- 4. The method of Claim 3, wherein the carbon dioxide gas is purified in an ionic purifier in which the carbon dioxide gas is brought into countercurrent contact in a column with a liquid comprising high-purity water, thereby forming a purified carbon dioxide gas which is removed from the ionic purifier.
- 5. The method of Claim 4, wherein packing material is disposed inside the column.
- 6. The method of Claim 5, wherein the carbon dioxide gas is introduced into the column at a point below the packing material.
- 7. The method of Claim 5, wherein the liquid is continuously introduced into the column at a point above the packing material, and the carbon dioxide gas is continuously introduced into the column.

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- 8. The method of Claim 1, wherein the preconditioning is performed in situ in an anion exchange column containing the anion exchange resin bed.
- 9. The method of Claim 8, wherein the column further contains high purity water through which the carbon dioxide gas is bubbled.
- 10. The method of Claim 8, wherein the carbon dioxide gas is introduced into a bottom portion of the column and is removed from a top portion thereof.
- 11. The method of Claim 1, wherein the anion exchange resin is converted to bicarbonate (HCO<sub>3</sub>) form.
- 12. The method of Claim 11, wherein the carbon dioxide gas is passed through the anion exchange resin for a period of from about 7 to 10 hours.
- 13. The method of Claim 1, further comprising contacting the anion exchange resin with deionized water after passing the carbon dioxide gas through the resin.
- 14. The method of Claim 13, wherein the carbon dioxide is passed through the resin bed at about atmospheric pressure.
  - 15. A resin preconditioned by the method of Claim 1.
- 16. The resin of Claim 15, wherein the resin is in bicarbonate (HCO<sub>3</sub>) form.



- 17. The resin of Claim 15, wherein the resin is DOWEX®550A (OH).
- 18. A method of purifying a hydrogen peroxide solution, comprising: passing said hydrogen peroxide solution through a column containing an anionic exchange resin bed, wherein said resin bed has been preconditioned by a method according to Claim 1.
- 19. The method of Claim 18, wherein the hydrogen peroxide solution has a hydrogen peroxide concentration of 50 weight percent or less.
- 20. The method according to Claim 18, wherein the resin is a DOW 550® anionic exchange resin.
- 21. The method according to Claim 18, wherein the hydrogen peroxide solution is passed through the column in an upflow mode.
- 22. The method according to Claim 18, further comprising passing the hydrogen peroxide solution through a second column ion exchange column in series with the first column.
- 23. The method according to Claim 22, wherein said second column contains a cation exchange resin.
- 24. The method according to Claim 22, further comprising passing the hydrogen peroxide solution through a third column for removing total organic

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25. The method according to Claim 18, wherein ionic impurities are removed from a hydrogen peroxide solution.